



What is claimed is:

1. In a telecommunications system, a processing module in communication with an
5 external communication device, said processing module comprising

a message handling object that receives message fragments from said external device,
said message handling object discerning an event and forming a message associated with said
event from selected ones of a plurality of received message fragments, and

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a dispatcher in communication with said message handling object, said dispatcher
identifying and invoking a selected process for processing said event,

wherein said selected process executes at least one task for providing a

15 communication service identified by said message.

2. A processing module according to claim 1, wherein said dispatcher is configured to
identify a processor containing said selected process.

20 3. A processing module according to claim 2, wherein said event includes a call control
event.

4. A processing module according to claim 1, wherein said event belongs to an event
class within an event hierarchy such that event within an event class are dispatched to a single
25 processing context.

5. A processing module according to claim 1, wherein said communication service
includes a call feature of a subscriber.

30 6. A processing module according to claim 1, wherein said message handling object is
configured to determine whether a newly received message fragment is associated with one
or more previously received message fragments.

7. A processing module according to claim 1, wherein said message handling object is configured to determine whether a received message fragment is the first fragment for forming a new message.

5 8. A processing module according to claim 1, wherein event effects the instantiation of one or more objects that can effect the execution of one or more operations for providing a communication service.

9. A processing module according to claim 8, wherein the instantiated objects access a
10 compiled representation of logic defining a telecommunication service.

10. A processing module according to claim 9, wherein the compiled representation is generated from a textual description in a mark-up language of the logic defining the telecommunication service.

15 11. A processing module according to claim 3, wherein said call control event includes an extended event defined as a combination of a call progress event and a pre-defined condition.

12. A processing module according to claim 1, wherein said external device is a
20 telecommunications switch.

13. In a telecommunications system, a processing module in communication with an external communication device, said processing module comprising

25 one or more message handling objects that receive message fragments from one or more external devices, said message handling objects assembling said message fragments to discern one or more events and to form one or more messages such that each message is associated with at least one of the events, and

30 a dispatcher in communication with said message handling objects, said dispatcher invoking at least one process that dynamically binds to a processing context defining an action to be executed in response to at least one of said events for providing a communication service identified by the message associated with said event.

14. A processing module according to claim 13, wherein said external communication device is a telecommunications switch.

15. In a telecommunications system, a processing module in communication with an
5 external communication device, said processing module comprising

10 a message handling object created as an application program that exchanges messages with the external device, said message handling object forming a message associated with an event communicated thereto by a processing context within the system and transmitting said message to the communication device, said message handling object further discerning an event and forming a message associated with said event from selected ones of a plurality of message fragments received from the device, and

15 a dispatcher that exchanges events and their associated messages between selected processing contexts and said message handling object to effectuate activation of selected communications services defined by said messages.

16. In a telecommunications system, a method for communicating with an external communication device, the method comprising the steps of
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receiving a plurality of message fragments from the external device,

discerning an event and forming a message associated with said event from selected ones of said received message fragments, and
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identifying and invoking a selected process for processing said event,

wherein said selected process executes at least one task for providing a communication service identified by said message.
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17. The method of claim 16, further comprising the step of determining whether a newly received message fragment is associated with one or more previously received message fragments.

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18. The method of claim 16, further comprising the step of determining whether a received message fragment is the first fragment for forming a new message.

19. The method of claim 16, further comprising the step of identifying a processor 5 containing said selected process.

20. The method of claim 16, wherein said event is selected to be a call control event.

21. The method of claim 18, wherein said call control event is selected from the group 10 consisting of offhook, dialComplete, remoteAlerting, remoteAnswered, seizure, hookflash, localRelease, and remoteRelease.

22. The method of claim 16, wherein said communication service is selected to include a call feature of a subscriber.

15 23. In a telecommunications system, a method for providing a communication service to a subscriber, the method comprising the steps of

20 receiving a plurality of message fragments from one or more external devices,

assembling said message fragments to discern one or more events and to form one or more messages such that each message is associated with at least one of the events, and

25 invoking at least one process that dynamically binds to a processing context defining an action to be executed in response to at least one of said events for providing a communication service identified by the message associated with said event.

24. The method of claim 23, wherein at least one of said external devices is selected to be a telecommunications switch.

30 25. In a telecommunications system, a method for providing a communication service to a subscriber, the method comprising the steps of:

providing an application program that exchanges messages with an external communication device, said application program forming a message associated with an event communicated thereto by a processing context within the system and transmitting said message to the communication device, said application program further discerning an event
5 and forming a message associated with said event from selected one of a plurality of message fragments received from the device, and

exchanging events and their associated messages between selected processing contexts and said application program to effectuate activation of selected communications
10 services defined by said message.

26. The method of claim 25, wherein said external device is selected to be a telecommunications switch.

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